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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/328,484	06/09/1999	HIDEAKI FUNAKOSHI	3064NG/47927	6889

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EXAMINER

BROWN, RUEBEN M

ART UNIT PAPER NUMBER

2611

DATE MAILED: 03/11/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/328,484

Applicant(s)

FUNAKOSHI, HIDEAKI

Examiner

Reuben M. Brown

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 14 October 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 3,4,7 and 8 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 3,4,7 and 8 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☒ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Response to Arguments***

1. Applicant's arguments with respect to claims 7 & 8 have been considered but are moot in view of the new ground(s) of rejection. On page 8 of applicant's remarks, it is stated that since Lownes discloses at least one instance in which a program signal may contain only one program which may be HDTV or it may contain as many as five programs, each being an HDTV or SDTV, the reference is different from the present invention. Examiner respectively disagrees and points out that, in both Lownes and the present invention the packet ID that represent particular programs or sub-channels are transmitted in the PAT, or PMT for particular programs. This information (including packet IDs, i.e., PIDs) represents the programs that are transmitted within a particular transport stream. However, Lownes goes on to discuss that a program correspondence table is built by the microprocessor 114, which is based at least in part on the PAT and/or PMT & stores the program information in FIFO array structures, so that they may be easily accessed, see col. 8, lines 42-58.

### ***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 3-4 & 7-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lownes, (U.S. Pat # 6,369,861), in view of Ozkan, (U.S. Pat # 6,111,611).

Considering claim 7, the claimed digital broadcast receiving comprising:

‘a transport unit for separating dividing a digital broadcast that has been subjected to demodulation in order to output the separated/divided digital broadcast toward a decoder’, is met by the operation of the transport processor 220, which receives the demodulated video from tuner 110, via channel data processor 210 and delivers the data to audio and video processors 118 & 120 (which in turn decodes the received audio & video), see col. 2, lines 19-56; col. 3, lines 15-30; Fig. 1 & Fig. 2.

‘memory unit for storing a relationship of each of a plurality of sub-channels of multi-channel broadcasting to each of a plurality of packet IDs in a table, wherein the sub-channels are defined on a standard definition broadcast basis’, is met by the discussion in Lownes that a ‘program correspondence table’ is built by the microprocessor 114 and stored in memory, (col. 7, lines 22-45). This ‘program correspondence table’ uses the PAT and PMT (program association table & program map table, respectively), to match sub-channels that are stored as FIFO structures with their PIDs, (col. 7, lines 45-67). According to Lownes this technique make it

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easier to switch back and forth between program arrays, since they are already queued in the FIFO arrays, stored at the subscriber's terminal, see col. 8, lines 42-49.

'broadcasting detecting unit for detecting one of one-channel broadcasting (HDTV) and multi-channel broadcasting (SDTV) according to a packet ID which is included in the digital broadcasting signal and has been inputted to the broadcast detecting unit from the transport unit' reads on the discussion in Lownes that according to the ATSC and MPEG-2 standards, transmitted video programming include a signal, (i.e. packet) that identifies the video programming as either a single program (HDTV) or multi-channel programming (SDTV), see col. 1, lines 25-34 & col. 2, lines 11-17.

As for the specific detail of the packet ID being inputted into the detecting unit from the transport unit, Lownes is not explicit as to where the detecting is located. However, Ozkan, which is in the same filed of endeavor discloses an arrangement wherein processor 22 receives a transport stream and decodes, i.e., detects the, PSI (program specific information) of selected programs as identified by their packet IDs (PIDs), see col. 5, lines 1-34. It would have been obvious for one of ordinary skill in the art at the time the invention was made, to operate Lownes according to the teachings of Ozkan, (col. 3, lines 10-65) detecting the specifics of programs after demodulation and deinterleaving, at least for the known advantage that the streams are now in MPEG format and may be processed with an MPEG processor.

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‘sub-channel control unit for controlling the transport unit so that when a result detected by the broadcast detecting unit indicates the multi-channel broadcasting, a predetermined packet ID of a set sub-channel is read out of the table and the corresponding broadcast signal is output’, Lownes teaches an example of a user scrolling through programs or using the PROG SEL button 314, col. 7, lines 45-67 thru col. 8, lines 1-35. In the examples, when the user scrolls to the last program, i.e. sub-channel in a tuned RF channel, the system may automatically extract the sub-channel information for the first program, i.e. sub-channel in the tuned RF channel or automatically tune to the next RF channel and automatically extract the first sub-channel of instant RF channel. In Lownes the sub-channels are chosen based on their PID, i.e., packet ID, see col. 7, lines 64-67; col. 8, lines 1-6 & col. 8, lines 18-26.

Both of these scenarios read on the claimed ‘predetermined packet ID of a set sub-channel’, since in both instances the receiver extracts and presents a default or predetermined sub-channel, based on the circumstance. Thus the sub-channel control unit reads on the operation of the microprocessor 114.

‘a setting unit for setting the set sub-channel to be initially displayed when the one-channel broadcasting is switched to the multi-broadcasting, and a recording unit for holding the sub-channel set via the setting unit, wherein the sub-channel control unit controls the transport unit so that when the result detected by the detecting unit indicates the multi-channel broadcasting, a broadcasting signal including packet ID corresponding to the sub-channel held in the recording unit is outputted’ reads on the discussion in Lownes, that when a user selects a

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different program (within a multi-channel broadcasting signal) that the program number is held in memory and displayed with the OSD; see col. 6, lines 4-50; Fig. 4 & Fig. 5. Thus the setting unit reads on the operation of the microprocessor 114.

Considering claim 8, the claimed computer software product for performing a method of controlling a digital broadcasting receiver, to perform the subject matter discussed above in the rejection of claim 7, is met by the combination of Lownes & Ozkan. In particular, both Lownes (col. 2, lines 21-22; col. 3, lines 58-67; col. 4, lines 38-46) & Ozkan (col. 3, lines 44-50) teach that a microprocessor may be used to carry out instructions for performing the features, which inherently requires the claimed computer readable medium having stored therein the program code segments.

As for the additional feature of the OSD superimposing data on the screen, Ozkan teaches that the OSD may be presented as an overlay, which reads on superimposing, col. 9, lines 50-60. It would have been obvious to operate Lownes according the overlay teaching of Ozkan, at least for the desirable benefit of simultaneously displaying video information and EPG data.

Considering claim 3, the claimed feature is met by the discussion of Lownes of either direct channel selection or the use of the scroll feature col. 7, lines 15-65 & col. 8, lines 1-35.

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Considering claim 4, the claimed subject matter is broad enough to read on displaying the sub-channel within a multi-channel broadcasting signal, which reads on the disclosure of Fig. 4 of Lownes.

### *Conclusion*

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- A) Morrison Teaches display and selection of HDTV or SDTV programming.
- B) Kondo Teaches that a default sub-channel may be automatically selected, when an RF channel is selected by a user.

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.



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**Any response to this action should be mailed to:**

Commissioner of Patents and Trademarks  
Washington, D.C. 20231

**or faxed to:**

(703) 872-9306, (for formal communications intended for entry)

**Or:**

(703) 746-6861 (for informal or draft communications, please label  
"PROPOSED" or "DRAFT")

*Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive,  
Arlington, VA., Sixth Floor (Receptionist).*

Any inquiry concerning this communication or earlier communications from the  
examiner should be directed to Reuben M. Brown whose telephone number is (703) 305-2399.

The examiner can normally be reached on M-F (8:30-6:00), First Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's  
supervisor, Christopher Grant can be reached on (703) 305-4755. The fax phone numbers for the  
organization where this application or proceeding is assigned is (703) 872-9306 for regular  
communications and After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding  
should be directed to the receptionist whose telephone number is (703) 305-4700.

Reuben M. Brown

  
HAITRAN  
PRIMARY EXAMINER